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Legacy - September 2006

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Legacy
South Carolina Institute of Archaeology and Anthropology

Callawassie Island Submerged Archaeological Prospecting Survey: Ground-Truthing Results

By James Spirek

An underwater archaeological survey in the Colleton, Okatie, and Ogeechee Rivers that surround Callawassie Island continued in 2005 to determine the sources of 30 of the 243 magnetic and acoustic anomalies detected in 2004. The remaining 213 anomalies detected during the survey may undergo ground-truthing activities in the future as funding permits. The main objective of the survey was to document intertidal and submerged cultural resources residing along the shores and bottomlands surrounding Callawassie Island. Supported by the Callawassie Island Stewards, Inc., an organization affiliated with the island's homeowner organization, the Marine Research Division (MRD) at SCIAA launched survey operations in July 2004 at eight separate survey blocks (See *Legacy*, Vol. 9, Nos. 1-2, p. 32). Following post-processing and analysis of the electronic data collected during the remote sensing phase, the survey resumed operations in 2005 to begin the process of identifying the sources of the magnetic and acoustic anomalies.

See CALLAWASSIE, Page 4

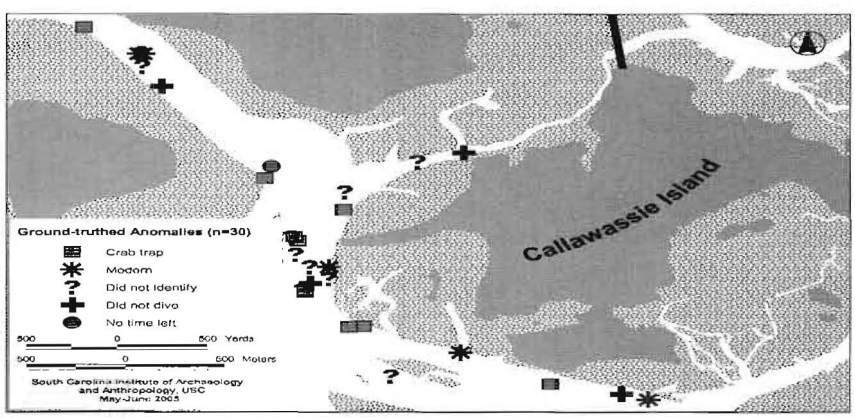

Figure 1: Map of ground-truthed magnetic and acoustic anomalies. (*SCIAA graphic*)

Inside...

Director's Note

By Thorne Compton
SCIAA Director

***Legacy* is the magazine of the SC Institute of Archaeology and Anthropology, University of South Carolina**
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Thorne Compton, Director
Nena Powell Rice, Chief Editor, Layout, Design, and Production

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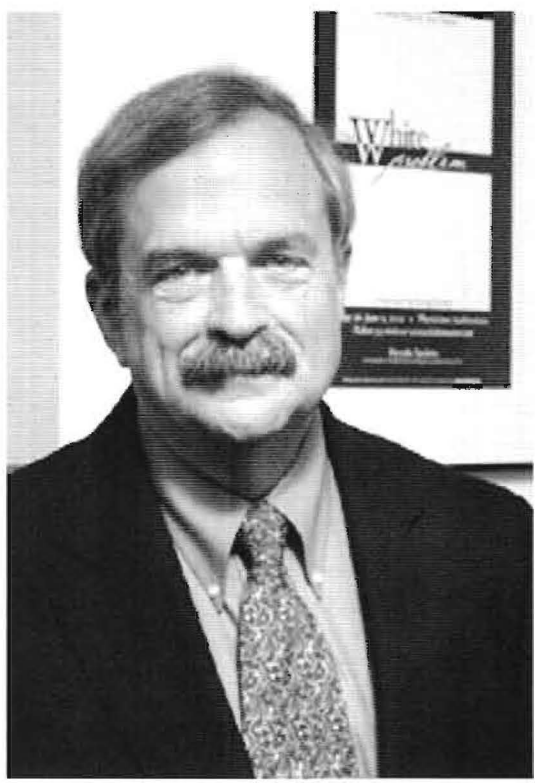
A new semester is starting at the University and many exciting things are moving forward for SCIAA. On September 21, 2006, we will begin interviewing candidates for our new Director. We have a very strong field of candidates from across the country that will come to Columbia to meet with our staff, persons within the University, representatives from the archaeological community, and our supporters. Our candidates reflect a variety of experiences from academic research and administration to museum curation to work with the National Park Service and cultural resource management within South Carolina. We will be announcing more information about individual candidates in advance of the interviews. We will have at least one public event featuring candidates so that you will have an opportunity to meet them. After those events, we will be asking you to give us feedback so that we can make the best possible choice for the future of SCIAA and archaeological research in South Carolina.

We are also moving ahead with two other projects important to our future. The plans have been drawn for the renovation of our building, and we hope to begin work on this project very soon. The process of moving into the new building once renovations are completed will be a monumental one. But it will also be an opportunity for us to work on our artifact collection to improve its packaging presentation and to begin a process of digitizing the collection to create a database that will be accessible through the Internet.

With the help and encouragement of the Archaeological Resource Trust Board, we are beginning this week a project that many have been talking about for years—a book on the archaeology of South Carolina that will present an interesting and compelling look at our state's extraordinary archaeological resources as well as the fascinating and important work of those who have led research projects across the state. We plan to partner with University of South Carolina Press on a book that will appeal to a broad range of readers and be filled with exciting and interesting illustrations and graphics.

The next few months will be filled with hard work and excitement as we build a new future together.



Thorne Compton, SCIAA Director

Special Events

South Carolina Archaeology Month 2006

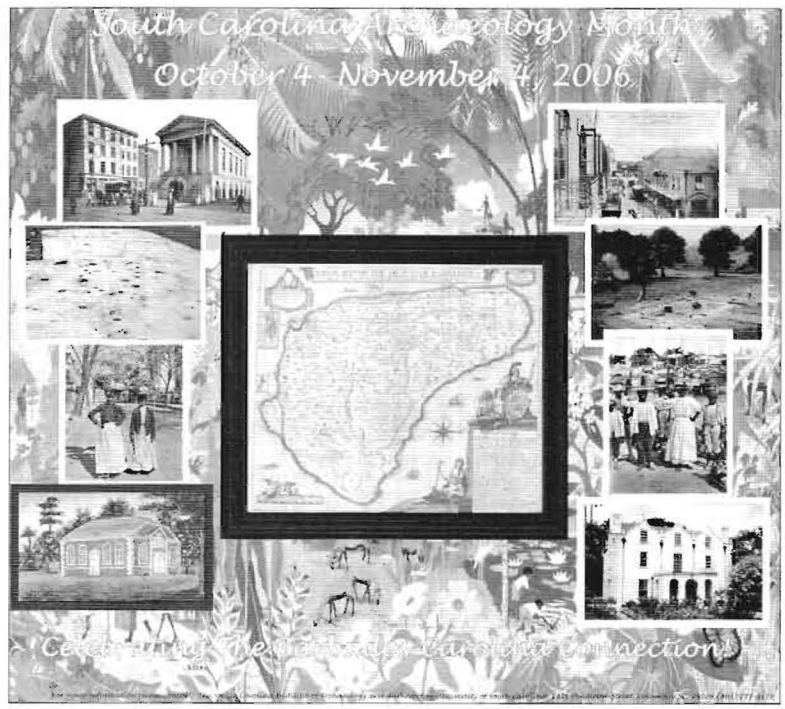
By Nena Powell Rice and Michael J. Stoner

The SC Institute of Archaeology and Anthropology at the University of South Carolina is coordinating its annual statewide celebration of South Carolina Archaeology Month. The fall event honors South Carolina's prehistoric and historic heritage with tours, lectures, demonstrations, exhibits, canoe trips, and open excavations, located throughout the state. In now its 15th year, SCIAA, with the assistance of SC Department of Archives and History, commemorates the month-long event with a topical poster focusing on current research in the Palmetto state. This year's theme is entitled "The Barbados-Carolina Connection."

Designed by USC Art Design graduate, Kelly Parker, and conceptualized by Michael Stoner, a SCIAA Research Affiliate and PhD candidate at the University of the West Indies, Cave Hill, Barbados (UWI), the Barbados-Carolina Connection poster features photographs pertinent to both Barbados and South Carolina history and archaeology superimposed on the Barbadian artist Jill Walker's "The Enchanted Isle" painting, on the front cover. On the back, a collaboration of 18 articles briefly describes South Carolina's historical ties to the Caribbean, including Guadeloupe, the Bahamas, with special emphasis on Barbados. Contributing authors include: Barbados historians and archaeologists Karl Watson (Lecturer at UWI) and Thomas Loftfield (Barbados Museum and Historical Society), South Carolina archaeologists Stanley South (SCIAA), John Cable, Eric Poplin, and Martha Zierden. Professor Ken Kelly from the USC Anthropology Department also submitted articles, along with James Legg, Carl Steen, Joe Joseph, Charlie Philips, Andrew Agha, Chester DePratter, and SC State Underwater Archaeologist, Christopher Amer.

Archaeology Month activities will culminate on November 4 with the 19th Annual South Carolina Archaeology Discovery Day, held at Santee State Park. Sponsored by the Archaeological Society of South Carolina, Discovery Day will feature demonstrations of prehistoric technologies, to include: flint knapping and stone tool making by James Parker and Scott Jones, hide work and sewing by Rebecca Parker, blow gun usage by Doug Meyer, and pottery making by the Bobby Southerlin family and Keith "Little Bear" Brown. Steven "Snowbear" Taylor will exhibit traditional plant usage, while Mike Sanderson and Mark Butler will display friction fire and other devices used by prehistoric peoples of South Carolina. Also, displays and posters will apprise visitors of current research and archaeology projects undertaken by various archaeology cultural resource management resource companies, research institutes, and SCIAA in South Carolina.

For a list of scheduled events in connection with Archaeology Month and Discovery Day, visit the SCIAA website http://www.cas.sc.edu/sciaa or the Archaeological Society of South Carolina website www.assc.net. Also, Nena Rice at the SCIAA can be contacted at nrice@sc.edu or by phone at (803) 777-8170 for further details.



Front of 2006 SC Archaeology Month Poster. (*Designed by Kelly Parker and Michael J. Stoner*)

CALLAWASSIE, From Page 1

To launch the process of determining the sources of the detected anomalies, SCIAA personnel undertook a low tide survey of the remote sensing areas on January 20-21, 2005. The purpose of this phase of the survey was to visually identify anomalies and to confirm the identity of sonar anomalies that were estimated to lie exposed during low tide. Using this method, and profiting from exceptionally clear water to a depth around 0.9-1.2 meters (3-4 feet), the sources of four anomalies were identified: two anomalies were identified as crab traps, one anomaly a boat trailer, and another anomaly was identified as an iron rebar rod. A number of others were confirmed as crab traps. Those not visible were presumed obscured by oyster growth or buried under sand or mud. A large object located in one of the small creeks bisecting the marshes across from Tabby Point, previously viewed from afar during the remote-sensing survey, was identified as a large crumpled section of corrugated metal drain pipe. No other structures were observed in the marsh to low tide interface. While conducting the low tide survey, aerial reconnaissance took place on January 20 to photograph the waterways surrounding Callawassie Island and to possibly identify objects exposed further in the marsh around the island. No items of interest were observed from this aerial perspective. The flight also covered the Port Royal Sound region to gather aerial panoramas of previous and future work areas.

For two weeks, May 23 through June 3, 2005, SCIAA personnel and volunteers dove on the 30 prioritized anomalies. Anomalies were selected for ground-truthing primarily for their potential to reveal the presence of historically or archaeologically significant cultural materials. Additionally, a range of magnetic anomalies, some large and some small, were chosen in order to learn the sources of a particular sized anomaly. This was done on the basis of realizing that watercraft in this area may contain low amounts of associated ferro-magnetic materials, as well as a simple desire to learn what kind of magnetic cultural sources resided on the bottom of the local waterways.

Fig. 2: Christopher Amer holding crab trap fragment. (*SCIAA photo*)

Examination of these 30 anomalies did not reveal any cultural resources of historical or archaeological significance. The majority of the anomalies were crab traps, both active and "ghost" traps, that bear witness to the active use of the waterway as an important fishery. Other modern objects included a dumpsite of one-inch diameter pipes, a large iron bracket, and two screw anchors. In some cases, underwater inspection did not identify the source of the anomaly as they were buried beyond metal detector range. Some anomalies were not investigated because the magnetics proved ambiguous; i.e., not as strong as before, for a variety of reasons—including the sensor hitting the bottom. Only one anomaly, categorized as low priority, was not investigated due to time constraints (Fig. 1).

The operations to relocate magnetic or acoustic anomaly for visual inspection by archaeologists consisted of several steps. First, the survey boat reacquired the target using the magnetometer or sonar to isolate the anomaly. Once isolated

Fig. 3: Timbers protruding from marsh bank at Tabby Point. (*SCIAA photo*)

and buoyed, archaeologists equipped with a J. W. Fisher Manufacturing Company Pulse 8 metal detector and a four-foot hand held probe began a circle search at five-foot increments out to a maximum of four turns or 20 feet to locate the anomaly (actually covering a 40-foot diameter area). In some cases, the target was exposed on the bottom, or usually, buried and detected by the metal detector and contact made with the hand-held probe. Others eluded the metal detector and were presumed buried deeper than the metal detector range of around three to four feet below the sediments. Hand fanning was usually sufficient to expose the object in question. Only once was an underwater induction dredge used to follow the remnant of a buoy line barely protruding above the sand that led to a crab trap buried several feet below the sediment. Some of the objects causing the magnetic or acoustic anomaly were brought on board the boat to photograph and measure (Fig. 2). While the majority of the sites were visually inspected by diving, during an extremely low tide, archaeologists walking along the southern shoreline of the island on the Colleton River survey area found two prioritized sites were crushed crab traps. Additionally, an iron pipe connector was visible in the mud and apparently detected as a 1.3 gamma anomaly by the magnetometer. Walking along the exposed sand flats of the marsh islands in the Colleton River revealed a number of crab trap iron rebar bases.

Despite the lack of significant underwater cultural materials, the possible remains of a landing or wharf was observed at Tabby Point. Several logs set perpendicular to the river and protruding from the marsh suggest the presence of a landing or wharf (Fig. 3). Although not constructed of typical materials, i.e., cobbles and bricks, the landing or wharf is located at one of two prime deepwater/land interfaces on the island. Further work is needed to record the structure and to confirm its tentative identity as a construct associated with the transfer of people and goods from the water to the land.

We would like to thank several colleagues for assisting us in our ground-truthing operations: Jason Burns, Deputy State Archaeologist-Underwater, Georgia Department of Natural Resources; Dr. Paul Work, Associate Professor, Georgia Institute of Technology; and Arnold Postell, Dive Safety Officer, South Carolina Aquarium. The Marine Research Division again would like to thank Bill and Kathy Behan for their enthusiasm for the project, and for Bill's persistence in obtaining funds for the project. The island's residents, especially, John and Charlene Hover, Frederick and Glenda Bertolet, and John and Roberta Brader, along with the Callawassie Island Club, are thanked for their support of the project. Other individuals meriting attention are Jim and Evelyn Scott for their continued support and involvement in the project. Bill Sullivan once again provided a dock and use of his house and guesthouse for lunch and relaxation.

Savannah River Research

Remote Sensing Reveals a Sacred Precinct on Etowah's Mound A

By Adam King

The Etowah site is one of the largest and most famous mound centers in the Interior Southeast. Its fame in large measure comes from the spectacular array of elaborate ceremonial objects recovered from the site's burial mound, Mound C. Etowah is also well known because its largest mound, Mound A, is one of the tallest in the Southeast—standing some 21 meters tall. Archaeological investigations have been conducted at Etowah for long over a century. Despite this fact there is a great deal we do not know about the site.

In 2005, a multi-institution team conducted remote sensing surveys at Etowah. Lannan Foundation of Santa Fe, the University of South Carolina, and the Muscogee (Creek) Nation of Oklahoma funded the project. The goal of the project was to determine if a suite of geophysical techniques could help identify old excavation units and buried features at the site. What follows are interpretations based on data reported by Schultz et al. (2006).

We approached the survey armed with three geophysical techniques: ground penetrating radar (GPR), resistance, and magnetometry. Johnnie Jacobs, Tim Thompson, and Joyce Bear of the Muscogee Creek Nation of Oklahoma, Cultural Preservation Office, operated the GPR unit, a GSSI SIR-3000 with a 400 MHz antenna. Given the excellent ground cover conditions at Etowah, a cart and survey wheel were used. Data were collected in a zigzag pattern along the Y axis at .5-meter increments with a 100 nanoseconds time window. Chet Walker and Clay Schultz, doctoral candidates at the University of Texas at Austin, collected resistance and magnetic data using a Geoscan Research RM-15 resistance meter with a 50-centimeter twin probe array and an FM 36 fluxgate gradiometer. They also collected data in 20 X 20 meter blocks following a zigzag pattern.

All of the collection blocks were positioned over the areas of interest using a newly established, permanent grid system for the site using a TDS. In addition, the locations of collection blocks were recorded in UTMs using a global position system. Chet Walker, using Geoplot, and Johnnie Jacobs, using GPR-Slice, are completing the on going data processing.

The crew was rounded out by Kent Reilly, Duncan McKinnon, and Chad Moore of Texas State University at San Marcos; Adam King of the University of South Carolina; Robert Sharp of the Art Institute of Chicago; Connie and Mandy Hodgson of Winthrop University; and Barbara Kuwalich of the State University of West Georgia.

Without question the most exciting results were returned from our surveys on the summit of Mound A. Mound A has received very little archaeological attention over the years. Undoubtedly part of that is due to the fact that people began finding burials and elaborate grave goods in Mound C in the late 19th century, so attention was naturally focused there. Henry Tumlin, whose family owned Etowah for generations, once told me that his grandmother refused Warren K. Moorehead's request to dig on Mound A because she did not think he was smart enough.

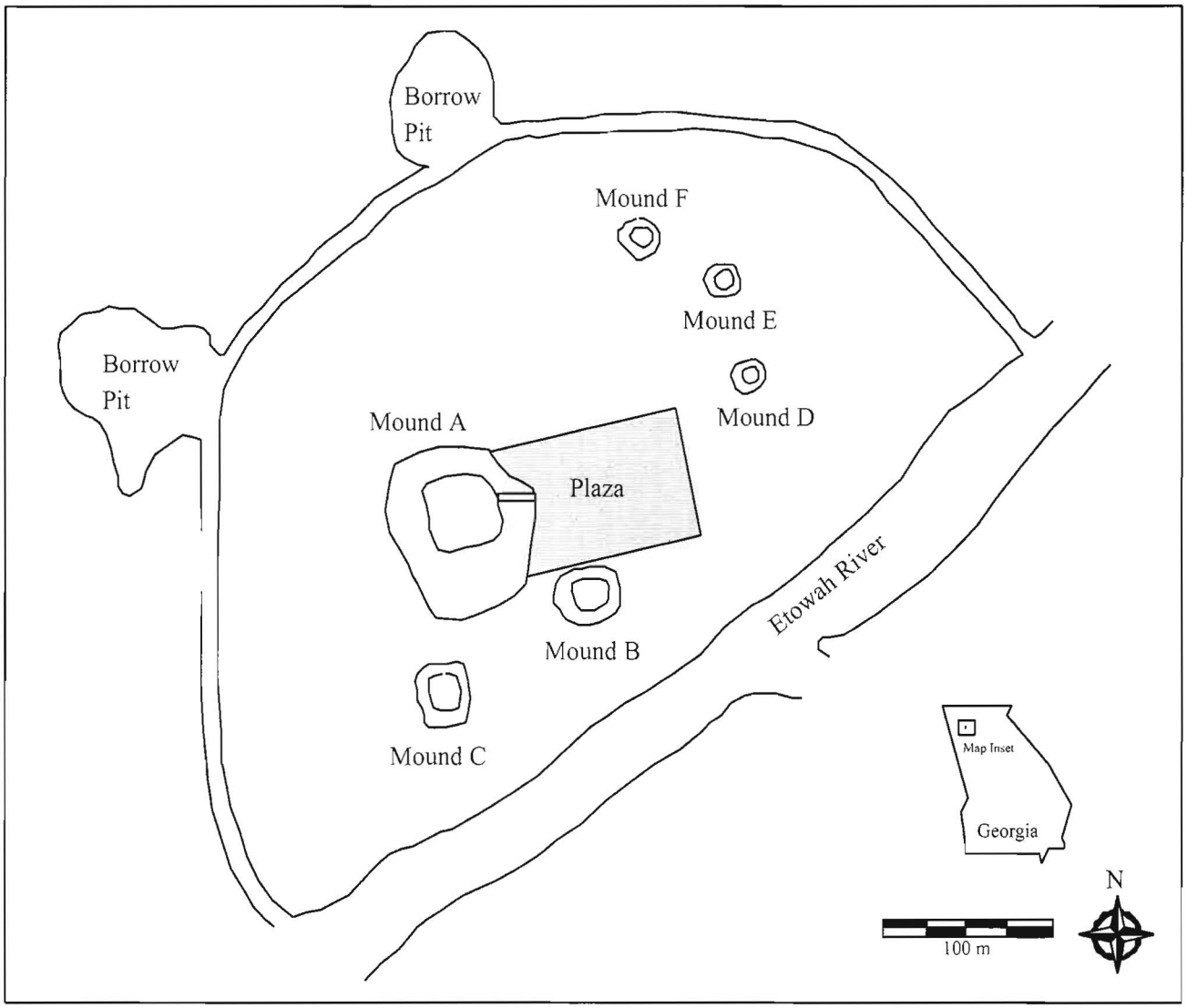
I conducted the first recorded excavations on the summit of Mound A under the direction of Lewis H. Larson in 1994 (King 1995). By that time Etowah was a state park, so I was not held to the same standard as Moorehead. We excavated two 2 X 3-meter units at the extreme northern edge of the summit. In those units we recovered daub and midden on top of mound fill, indicating an intensive Late Wilbanks phase (AD 1325-1375) occupation of the last summit stage. The deposits had clearly been plowed, and this information supports reports by the Tumlins that the summit was used to grow watermelons during the late 19th and early 20th century. During that time, a mule team plowed the approximately one acre of land.

Given the size of Mound A and the evidence for an intensive use of its summit, we expected to find the remains of structures there. We were not disappointed, as evidence for buried structures was found using all three geophysical methods. By far the most interpretable data set was produced by the gradiometer. The magnetic data collected revealed the possible remains of as many as four buildings and associated architecture

and open spaces in a 40 X 40-meter block that almost entirely covers the mound's summit. Unlike GPR, the magnetic data does not include information on depth below surface. However, it seems likely that the buildings revealed were built on the last stage of Mound A.

Structure 1 is the largest building on the mound summit, measuring approximately 16 X 18 meters. This is a very large building by Mississippian standards, with a floor area of 288 square meters. Without excavation data it is difficult to understand the function of the building, but it is significantly larger than contemporary residential structures in the region whose floor areas tend to range from 37 to 65 square meters (Lewis 1995). Actually, it is larger than most contemporary non-residential structures in the region, which cover from 47 to 204 square meters (Lewis 1995). In fact, only one building recorded at Etowah is larger than Mound A's Structure 1. That building is Larson's Structure 5, recorded in Early Etowah phase (AD 1000-1100) deposits beneath Mound C, and it had a floor area of 405.6 square meters.

Structure 2 is smaller than Structure 1, which measures 81 square meters on the floor (9 X 12 meters), but it is still larger than residential buildings in the region. It is positioned at the back of the mound, furthest from the site's plaza and the mound's elaborate staircase. What makes it particularly interesting is the fact that it appears to have a partition segregating a three-meter segment of the building from the rest of the structure. This calls to mind French descriptions of the temple at the Natchez capital in the 18th century. This building had a partition creating a small room where the holiest of the holies were kept and where only certain people were



Plan map of the Etowah site. (*SCIAA drawing*)

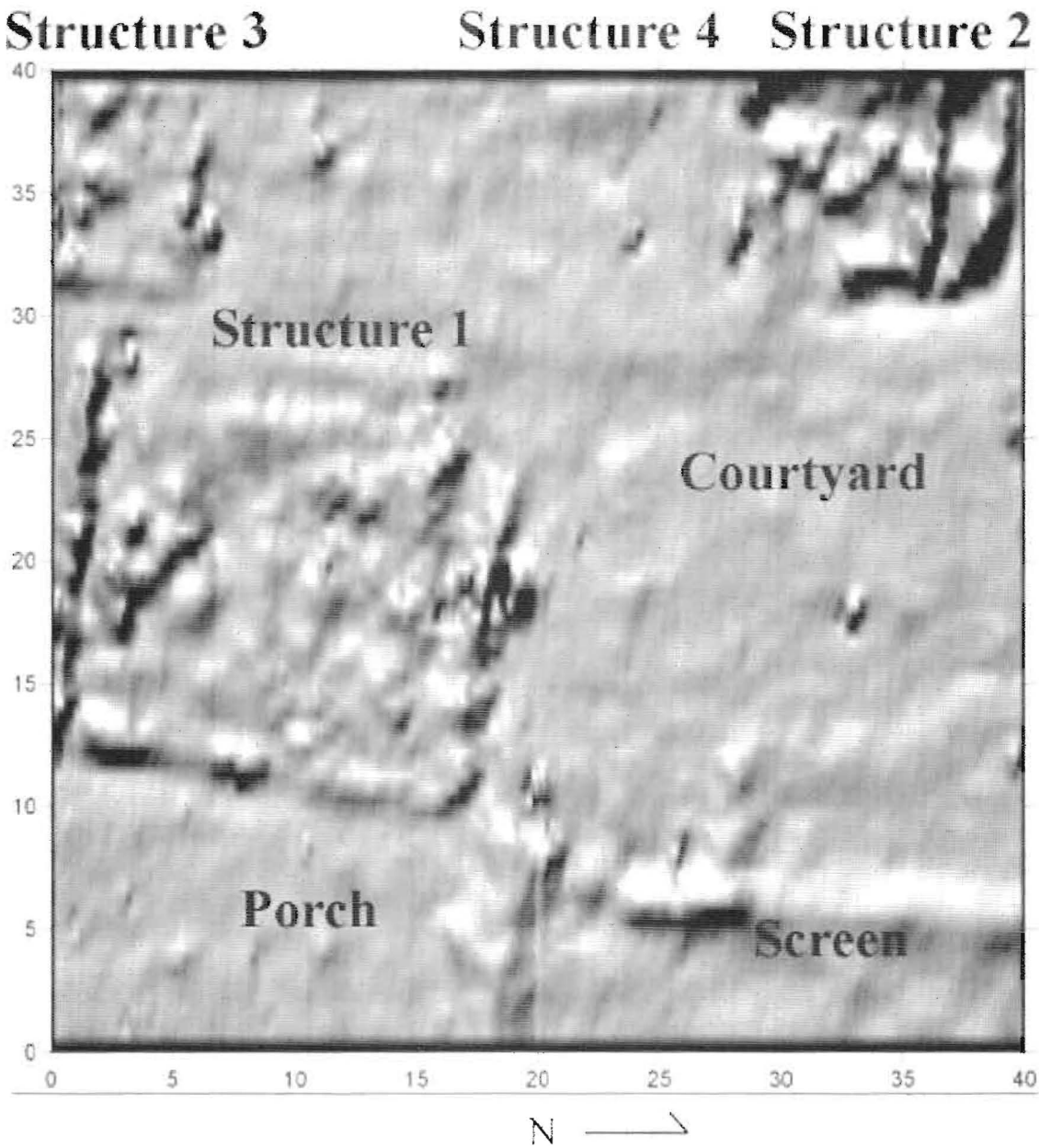
See ETOWAH, Page 8

ETOWAH, From Page 7

allowed to go upon pain of death (see DePratter 1991). Again, without excavation data this remains just a tantalizing possibility.

smallest of the buildings on the Mound A summit (6 X 8 meters), its floor area still falls on the upper end of the residential building distribution.

not necessarily have to do with the depth at which it is buried, but likely has more to do with the nature of its archaeological deposit. It is simply less magnetic than the other



2005 Magnectic data collected from the summit of Mound A at Etowah. (*SCIAA graphic*)

Structure 3 is also located on the backside of Mound A and is separated from Structure 2 by an open space. Although it is the

Directly in between Structures 2 and 3 is a fainter magnetic signature representing the remains of Structure 4. The faintness of the signal does

buildings. Interestingly, it is the second largest building on the mound (15 X 12 meters or 180 square meters) and significantly larger than

both contemporary residential and public structures in the region. Also, it seems to share a wall with Structure 2. Without excavating these buildings, it is difficult to determine whether they were contemporary and conjoined or were built sequentially.

Besides the clear outlines of these four buildings, there are two other pieces of architecture that stand out. A single wall offset to the north of and running at right angles to the east wall of Structure 1 represents one. The survey unit is positioned such that it is unclear as to whether there is a parallel wall to the south and a perpendicular wall to the east forming another building. If it is another building, its east wall rests at the very edge of the mound summit. Although this is largely conjecture, it may be that this represents a porch rather than a structure whose open end is visible to people in plaza below--a stage for the kinds of public displays Mississippian chiefs were known for.

The other wall of interest runs at a right angle to this porch and extends to the north. There is not enough room to make another building out of this wall, so I hypothesize that it represents a screen. Behind that screen, to the west, is an area of low magnetism surrounded by buildings on two sides. This looks to be an intentionally designed open space. The screening wall on its east side may also continue on the north, but if so it is on the very edge of the mound summit. Presumably, the screen would have been designed to block views from below of activities in this courtyard, and in and around Structures 2, 3, and 4. At this same time, it likely focused attention on the porch. While this is likely stretching the data farther than it should to, there is an open space between the porch and screen walls that lines up nicely with the axis of the mound's ramp--as if this was the entrance to the complex.

Essentially, this set of architecture creates a precinct of buildings and open space on the summit of Mound A. Internally it is arranged in a manner similar to many Mississippian mound towns, which have a series of mounds arranged around an open plaza. This arrangement in turn must be related to the structure of later Creek ceremonial grounds (see for example Hudson 1976). As described historically, these had an open space, occupied by a central hearth and flanked by architecture associated with summer town councils and the important Green Corn Ceremony. The fire in the center of these places recreated the center of the cosmos and ultimately created a sacred space in which important ritual took place (Lankford 1987). On the summit of Mound A, most of this took place behind a screen and was clearly not meant to be viewed publicly. However, there was a place for public displays--the porch associated with Structure 1--and conveniently it faced east. At least some early historic descriptions, particularly the Natchez, describe a clear link between chiefs and the sun. (DePratter 1991).

My remote sensing colleagues are always quick to remind me that what they find are anomalies in data collected using various geophysical prospecting methods. The interpretations we make from those anomalies are at best educated guesses that can only be verified through some level of archaeological excavation. Until we attempt those excavations, the interpretations I put forth here must remain educated guesses.

References

Lewis, Thomas M. N.
1995 Architectural Industry. In *The Prehistory of the Chickamauga Basin in Tennessee*, edited by Lewis, Thomas M. N., Madeline Kneberg Lewis, and Lynne P. Sullivan, pp. 54-78. University of Tennessee Press, Knoxville.

Depratter, Chester B.
1991 *Late Prehistoric and Early Historic Chiefdoms in the Southeastern United States.* Garland Publishing, Inc., New York.

Hudson, Charles M.
1976 *The Southeastern Indians.* University of Tennessee Press, Knoxville

King, Adam
1995 *Steps to the Past: 1994 Archaeological Excavations at Mounds A and B the Etowah Site (9Br1), Bartow County, Georgia.* The Georgia Department of Natural Resources, Atlanta.
2003 *Etowah: The Political History of a Chiefdom Capital.* University of Alabama Press, Tuscaloosa.

Lankford, George E.
1987 *Native American Legends: Southeastern Legends--Tales from the Natchez, Caddo, Biloxi, Chickasaw, and Other Nations.* August House Publishing.

Schultz, T. Clay, Chet Walker, Johnnie Jacobs, Tim Thompson, and Lewis Somers
2005 Archaeo-Geophysical Surveys at Etowah in Northwestern Georgia. Paper presented at the 71st annual meeting of the Society for American Archaeology, San Juan.

Office of the State Archaeologist

South Carolina State Archaeologists Team-Up to Help *History Detectives*

By Jonathan Leader and Christopher Amer

Christopher Amer and I, in our capacities as State Underwater Archaeologist and State Archaeologist, recently teamed up with Lion Television and Public Broadcasting Service television. The occasion was the opportunity to investigate a true South Carolina mystery for a segment of the popular series, *History Detectives.*

Daryl Boyd, a well-known hobby diver in the South Carolina Sport Diver Archaeology Management Program, found an object lying on top of the riverbed while diving in the Savannah River 13 years ago. The find was in 20 feet of water near the South Carolina bank in the vicinity of the old town of Hamburg. Daryl contacted the Institute and filed a report as required by law.

Fig. 1: 71st Highlander Cartridge Box Plate. (*Photo courtesy of Lion Television*)

He brought the object to the Institute for inspection, at which time the object was positively identified it as a "cartridge box plate" from the 71st Scottish Highlanders Regiment. The 71st was a Revolutionary War regiment raised specifically in response to the American Revolution and had a very short regimental existence. It was stationed in the Augusta, Georgia area for only a few weeks in the beginning of 1779. In accordance with state law, Daryl retained his find.

It is important to note that very few 71st cartridge box plates have ever been found in the United States. Daryl has always taken his stewardship responsibilities for the artifacts he collects very seriously and kept the box plate safe. From time to time he tried to find out how the plate had gotten to the place where he found it and what the historical connections it may have had with South Carolina. While some information was available, it tended to raise more questions than it answered.

Fortunately, he passed on his question to Lincoln Farr, Associate Producer of Lion Television's History Detectives. Lion Television is home based in the United Kingdom. A question concerning a Scottish regiment operating during the American Revolution was intriguing on far too many levels to pass up. Lincoln decided that this was a perfect question to form an episode of the *History Detectives.*

Lincoln contacted Christopher Amer and myself. Between the two of us, we were well equipped to answer questions on the 71st, the river in which the medallion was found, its metallurgical content, preservation environment, and conservation options of the artifact itself. The initial consultations went very well, and we were sworn to secrecy, forbidden to discuss the findings before the airing of the show.

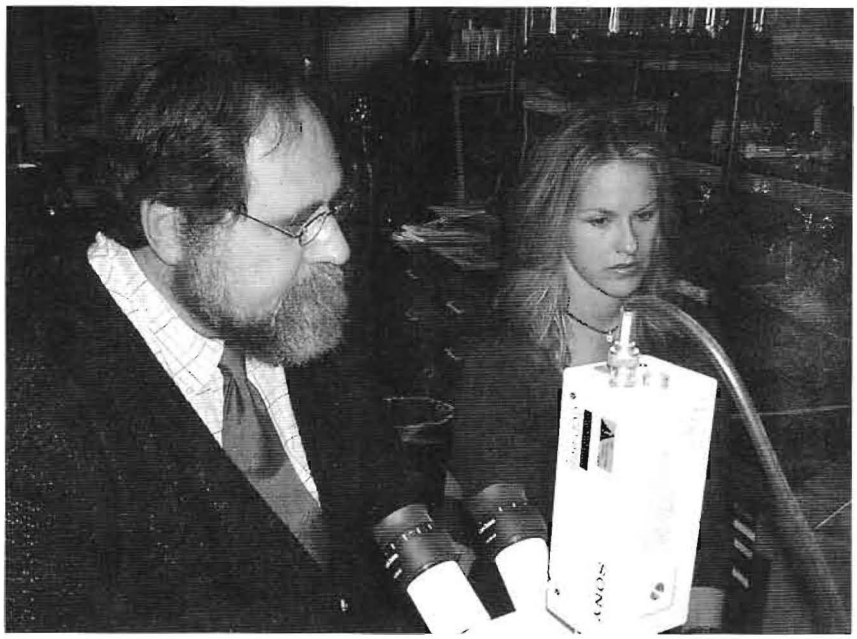


Fig. 2: Jonathan Leader and Elyse Luray analyzing the 71st Highlander Cartridge Box Plate. (*Photo courtesy of University of South Carolina Media Arts*)

History Detective's Elyse Luray interviewed Chris and I on the morning of March 27th. The filming took place on the USC Columbia campus in a laboratory of the Earth Sciences Building. Dr. Tim Mousseau, Associate Dean for Research of the College of Arts and Sciences, made the laboratory available. Unfortunately the Institute's laboratories had insufficient space to accommodate the film crew. Fortunately, this will be rectified in the new building.

Elyse Luray is well known for her work with the *Antiques Road Show* and with Christy's Auction House. She is an excellent appraiser of historic materials and has a real interest in history. Not to mention a wonderful sense of humor. Elyse was very well prepared and asked questions about the manufacture and metallic make-up of the embossed buckle, its interaction with the environment, why it was in such good condition, and ultimately, whether or not it was genuine. As an archaeometallurgist and objects conservator, I handled the first set of questions, and Chris, as the maritime archaeologist, handled the latter. Both of us agreed that it was genuine and that the object had been in an anaerobic condition until just shortly before Daryl found it. This accounted for much of its preservation. The domed shape of the cartridge box plate had held it firmly to the bottom as the river's flow ran over the exposed surface adding to its protection.

The filming took the better part of a day, and the episode aired on July 17th on PBS. *History Detectives* has thoughtfully provided a copy of the show on VHS, which may be scheduled for viewing at the Institute.

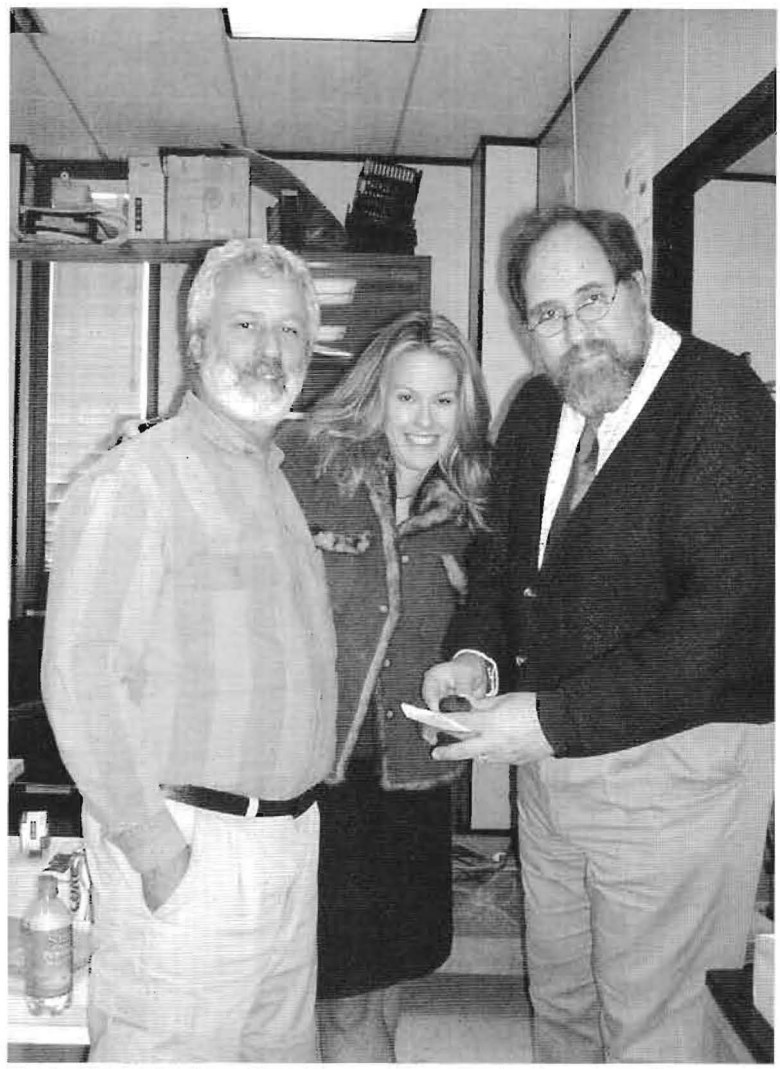


Fig. 3: Christopher Amer, Elyse Luray, and Jonathan Leader on set. (*Photo courtesy of University of South Carolina Media Arts*)

Office of the State Archaeologist Assists in Forensic Archaeology Recoveries

By Jonathan Leader

The Office of the State Archaeologist (OSA) has been involved since its inception in 1963 with forensic archaeological recovery. South Carolina's steady growth and development of the historic landscape has from time to time impinged on burials and cemeteries from all time periods and all cultures. Approximately 100 consultations occur every year.

Fig. 1: A K9 unit in use delineating an area for search by ground penetrating radar. (*SCIAA photo by Jonathan Leader*)

In 1999, the OSA involvement moved to a much higher level that has continued to the present. This was the result of the South Carolina legislature recognizing that the Institute needed more advanced equipment to properly accomplish its legal mandates. Two remote sensing packages were funded; ground penetrating radar for OSA and a side scan sonar, sub bottom profiler, and magnetometer for the Maritime Research Division (MRD). A provision was added to the funding bill that seconded both OSA and MRD to the State Law Enforcement Division to assist in search and forensic analyses.

The effect on the OSA was immediate. There have been quite a few high profile cases in South Carolina. In very rapid succession, OSA was contacted by the law enforcement agencies involved and asked to help. To date, the OSA has assisted, consulted with, or acted in support of the Federal Bureau of Investigation, the Drug Enforcement Administration, US Army Counter Terrorism Task Force, US Marine Corps, US Navy Investigations Unit, the SC State Law Enforcement Division, and quite a few South Carolina county sheriffs, county coroners, medical examiners, and city police departments. Unfortunately, these activities are rarely permitted to be published for legal reasons.

Realizing that one of the benefits of this kind of activity is the training of professionals; the OSA recently reestablished a link to the USC Department of Anthropology in this area to ensure the involvement of students. Dr. Laura Cahue, physical anthropologist in the Department, has been working with me on several consults and recently brought a class studying forensic techniques into the field in support of a law enforcement recovery project. The closely supervised exercise was very successful.

On the national level, OSA is in discussion with Brown University's

Fig. 2: Forensic investigation flag marking area of interest. (*SCIAA photo by Jonathan Leader*)

Forensic Archaeological Recovery group to provide regional cooperative support, training, and in times of disaster, deployment. National certification of technicians is always desirable, and OSA is pleased to be involved. The cooperative agreement should be in place later this year.

The ground penetrating radar purchased by the legislature is aging. Electronic equipment has a very short use life before it is made obsolete by advancements in technology. Fortunately, the success of the program instituted in 1999 has not been lost on the legislature. Several members have expressed interest in purchasing an updated package.

Recently, I received an award from the Richland County Sheriffs Office as a member of the Cold Case Team for 2005. It is nice to know that OSA's efforts have had a direct impact on this vital area of community safety.

Fig. 4: SCIAA ground penetrating radar in use. (*SCIAA photo by Jonathan Leader*)

Fig. 3: Area of interest at an undisclosed location. (*SCIAA Photo by Jonathan Leader*)

Research Division

Three Recent Santa Elena Projects

By Chester B. DePratter

Beginning in Fall 2005, funding obtained through the U.S. Marine Corps, Parris Island, allowed Stanley South and me to continue our long-term research on the Spanish colonial Santa Elena site (occupied 1566 to 1587). Stan has been working there since 1979, and I joined him in Parris Island research in 1989. In previous projects, we have investigated two Spanish forts, a French fort that preceded the Spanish presence, several structures, eight wells, a pottery kiln, and numerous other Spanish features.

One of our long-term concerns in regard to the Santa Elena site has been the ongoing erosion of its eastern margin by Means Creek and high water during storms. This erosion has resulted in the loss of between 125 and 150 feet of shoreline in the last 420 years. In 2005, Bryan Howard, Parris Island Depot Archaeologist, assisted us in obtaining funds to address the impact of that erosion. Part of the funds Bryan obtained was used to contract with the U.S. Army Corps of Engineers to provide an estimate of shoreline stabilization costs. The remainder of the money allowed us to conduct archaeological testing at three places along the shoreline to help assess the impact of erosion and to provide information needed for stabilization planning.

Inside Fort San Marcos II (constructed 1582 or 1583), we dug three trenches perpendicular to the present shoreline. In each of these trenches we found evidence of fill placed by the Marine Corps; this fill extended 25 feet or more inland from the marsh edge. It appears that by the time the Marine Corp acquired the property in 1918, the shoreline was jagged and uneven. The shoreline was subsequently filled and straightened (perhaps in preparation for the Charlesfort monument dedication ceremony in 1926). Preliminary analysis indicates that at least some of the fill for this operation was scraped from the interior of the fort, thus damaging the 30 percent of the fort that remains. Clearly shoreline stabilization is needed before there is further damage to this surviving remnant.

Fig. 1. Excavations in search of 17th century Native American council house at Santa Elena site. (*SCIAA photo by Chester DePratter*)

Once work was completed inside Fort San Marcos, we moved north along the shoreline to further investigate an area adjacent to where Stan had opened a 20 X 30 foot block in 1982 (38BU162D—South Block). We excavated eleven 10 foot squares in this area with the hope that we would find the remains of a building (possibly a church) that appears on a 1578 plan of Fort San Marcos I. We found numerous Spanish features, but we were not able to define a structure. In the eastern edge of our excavation block, we encountered a large area of Marine Corps fill. This fill was adjacent to a meander of Means Creek. We suspect that Means Creek had previously cut into the site in the area of our excavations, but the Marines had filled this erosional cut with rubble and other debris some time since 1916.

We next excavated several trenches to the north of Fort San Felipe I in the area where the Charlesfort moat approaches the present shoreline. We have been working to define the outline of French Charlesfort (occupied 1562-1563) since we discovered it in 1995, and this brief project was just a part of that long-term effort. We were able to further define a possible entranceway to the French fort that we first exposed in 2002, and we found the point where the Charlesfort moat corners to form the tip of a bastion. This moat corner is right on the edge of a steep bluff, and we now know that it is in an area that will need special consideration during shoreline stabilization work.

Fig. 2. Field crew (left to right): Chester DePratter, Henry Mintz, James Legg, Michael Stoner, Stanley South. (*SCIAA photo*)

Another project that we initiated this spring was a search for a Native American council house observed on the site by William Hilton in 1663. Hilton described this structure as being "in the shape of a Dove-house, round, two hundred foot at least." If Hilton was providing an estimate of circumference, then the building was about 64 feet in diameter. We began our search for this structure by excavating a trench through an area where we had found a concentration of late 17th century Indian material during our boundary survey shovel testing project in 1994. Our trenching and follow-up block excavations exposed numerous features, but we were unable to define a circular structure with the appropriate dimensions. The search for this council house will continue in coming seasons.

Our final project involved investigation of human remains that we encountered in 1997 while working to define the southwest bastion of Fort San Felipe II. At that time, we thought that these remains were in moat fill and that they might represent the disposal of executed French seamen from the ship, *Le Prince*, that wrecked at the entrance to Port Royal Sound in 1577.

Our 2006 excavations demonstrated that this interpretation was incorrect. We found, instead, that when the Spanish dug the Fort San Felipe moat in 1566, they had cut through a pre-existing Native American burial. The entire burial, except for its upper torso, upper arms, and skull, was cut away by the Spanish and thrown up to form the parapet or the glacis surrounding the fort. Then when the Spanish refilled the moat, those same disturbed bones were thrown back into the moat as part of its fill. We excavated the portion of the moat adjacent to the remaining intact portion of this burial, and we found no evidence of disposal of Frenchmen or anyone else in the moat. The date of the original burial has not yet been determined.

Field crew for these projects consisted of James Legg, Michael Stoner, and Henry Mintz. The entire archaeological crew from the Palmetto Bluff Project assisted us for a week in the excavation of the block just north of Fort San Marcos. We extend our thanks to Dr. Mary Socci and Dr. Ellen Shlasko for bringing their crew and making it possible for us to open a much larger block than we would otherwise have been able to do. Carl Halbirt, St. Augustine, Florida, City Archaeologist worked with us for a week in the moat excavations. We also appreciate the assistance of Dr. Matthew Williamson, Georgia Southern University, and Dr. Ted Rathbun, retired USC professor, in identification of the human remains from the moat excavations. None of these excavations would have been possible without the assistance of Dr. Bryan Howard.

In September 2006, we will return to Santa Elena (with additional Marine Corps funding) to complete work around the pottery kiln that we first exposed in 1993. We will be searching for the potter's house and the waster dump, and we will also be investigating a possible clay source on the margin of a nearby sinkhole.

The Southeastern Paleoamerican Survey

By Albert C. Goodyear

The Southeastern Paleoamerican Survey (SEPAS) was founded in January of 2005. The purpose of the Survey is to search for and discover evidence for the early human occupation of the southeastern United States. The program involves the interested public in field and laboratory studies and through conferences and other forums open to the public. The Survey is a research program within the SC Institute of Archaeology and Anthropology (SCIAA) at the University of South Carolina. It was formerly (1996-2004) known as the Allendale Paleoindian Expedition. The Expedition was renamed the Southeastern Paleoamerican Survey to communicate the geographic scope of the research as well the time depth implied for pre-Clovis archaeological sites such as the Topper site in Allendale County, South Carolina.

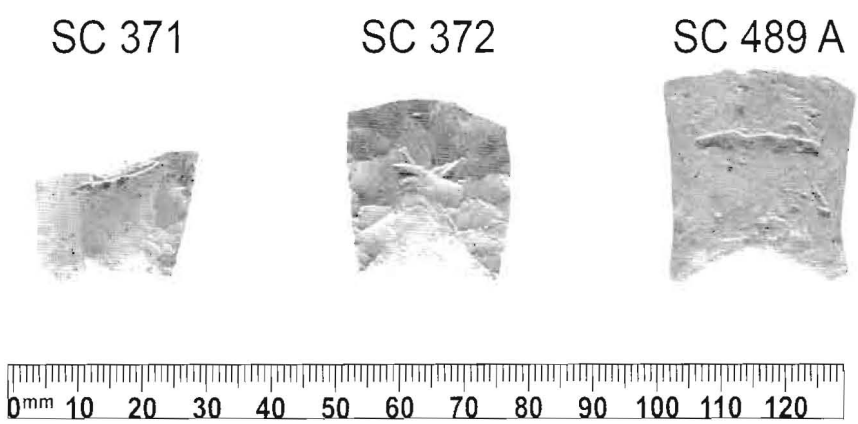
Research Programs

The Survey conducts surveys and excavations in the Southeast on Paleoamerican sites 12,000 years and older. These studies concern what have been traditionally known as Paleoindian cultures including Clovis through Dalton age sites (13,500-12,000 yrs.). Evidence of an even earlier Ice Age human presence in North America is accumulating including the Topper site. The search for Pleistocene age sites is now warranted, which will likely shows that people were in the unglaciated southeastern United States thousands of years before Clovis (Goodyear 2005).

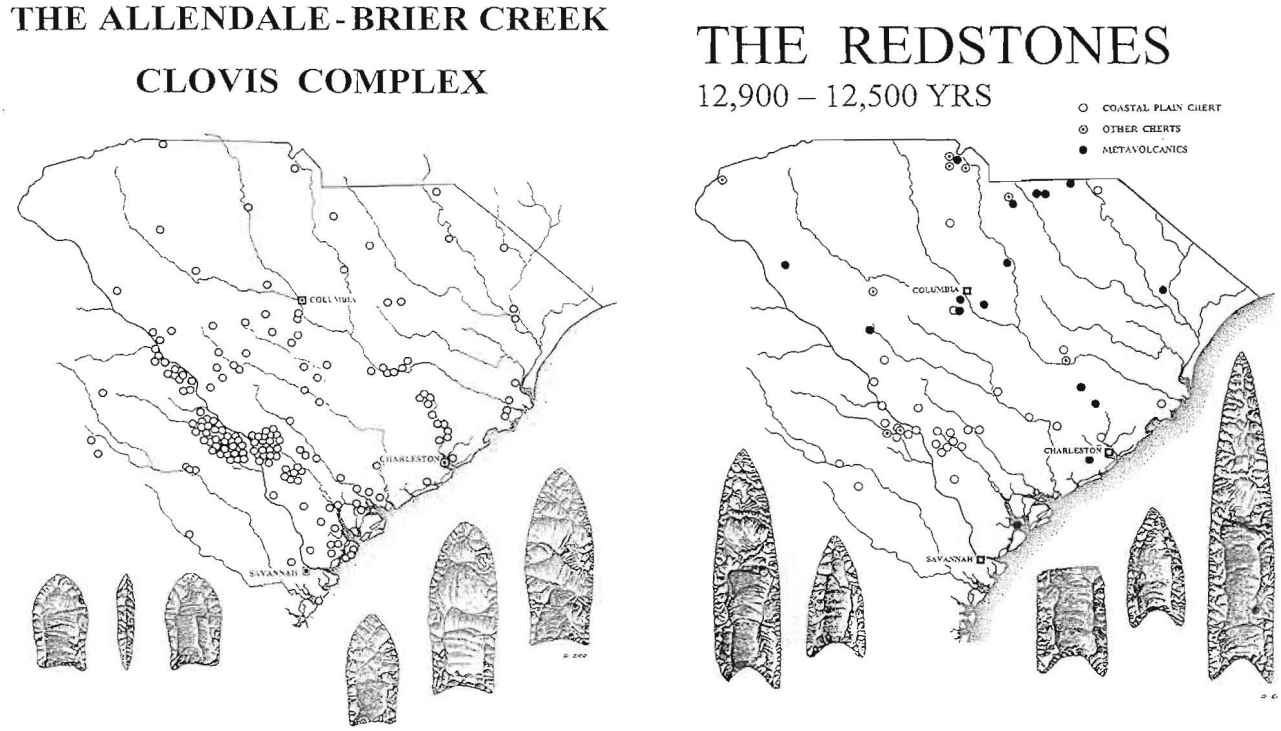
The Expedition

The Expedition is an annual survey and excavation program involving professional archaeologists and other scientists and the participating public. Fieldwork at present is focused on the chert quarry-related sites in Allendale County, South Carolina, located on the property of Clariant Corporation. Long-term excavations have been conducted there since 1994, focusing on traditional Paleoindian sites such as Big Pine Tree, Charles, and Topper. Clariant Corporation has not only allowed field studies on their land but has generously provided camping facilities for the Expedition staff and volunteers since 1996. In 2006, Clariant helped construct a pavilion over the deep Pleistocene terrace excavations at Topper providing protection from the sun and rain.

Starting in 1998, field research has been concentrated on the pre-Clovis and Clovis occupations at the Topper site. Topper is widely regarded as an example of a pre-Clovis site in North America (Goodyear 2005) and has received international media attention including CNN, *Science* Magazine and *National Geographic*. Since 2004, fieldwork has been expanded to include excavation of a substantial Clovis occupation (Goodyear and Steffy 2003; Steffy and Goodyear 2006;



Clovis points excavated at the Topper site (38AL23). (*SCIAA photo by Daryl P. Miller*)



Clovis and post-Clovis Redstone point distributions showing collapse of Clovis culture. (*Art work from t-shirts of Southeastern Paleoamerican Survey by James Legg and Darby Erd*)

Chandler 2006). In 2005, a major conference was held in Columbia, Clovis in the Southeast, organized by the Southeastern Paleoamerican Survey and co-sponsored by the Smithsonian Institution, Texas A&M University, and the University of Tennessee, which included a tour of the Topper site pre-Clovis and Clovis excavations (www.ClovisintheSoutheast.net). Members of the public can participate in the Expedition by registering for a week or more as a volunteer (www.allendale-expedition.net). Volunteers work along side of staff and students to help excavate these important sites.

The South Carolina Paleo Point Survey

Like most states, South Carolina has recorded diagnostic Paleoindian projectile points. The public has contributed over 95% of these specimens to this database and made their important finds available to SCIAA. The Paleo point survey was begun in 1965 by James L. Michie, and continued for over 25 years by Tommy Charles and others. Presently, the Survey has nearly 500 lanceolates recorded. The Southeastern Paleoamerican Survey continues this important documentation of ancient stone spear points and is improving data recording and acquisition through georeferencing for GIS analyses (Gillam, Goodyear, and Charles 2005; Anderson et al. 2005: http://pidba.tennesee.edu/southcarolina.htm).

Stone Tool Mapping

The Survey is also interested in studying the geographic distribution of Paleoamerican tools. Working with private artifact collections is the primary means of gathering this information. Studies of stone tool geographic patterns are critical for understanding ancient settlement patterns.

Southeastern US Lithic Raw Material Survey

Paleoamerican stone tools were typically made on certain types of stone such as chert and metavolcanic silicates. Mapping the geologic sources of these lithic materials allows the discovery of important quarry-related sites and the geographic dispersion of artifacts made from these rocks. Currently, the Survey has lithic raw material samples from Florida to Virginia.

Southeastern US Quaternary Studies

Because of the presence of humans well back into the Ice Age, the Survey works with scientists such as geologists, soil morphologists, palynologists, and other geoscientists to reconstruct the ancient Pleistocene landscapes and climate. In addition to paleoecology, it is also important to recognize and date Pleistocene geological deposits in order to effectively prospect for ice age Paleoamerican sites (Goodyear 1999;

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Goodyear, Forman, and Foss 2003; Gillam, et.al. 2006).

Research Library

The Survey maintains and collects books, reports, and articles pertaining to the study of ancient people. The Survey's library is part of the SCIAA Research Library, which has in excess of 30,000 titles. The personal library of Albert C. Goodyear forms a large section of the Paleoamerican holdings.

The Survey maintains artifact collections as part of SCIAA's State curation mandate. Important sites collections include Nipper Creek, Taylor, Big Pine Tree, Charles, Topper and Tampa Bay drowned sites. The Survey continues to acquire scientifically valuable private artifact collections such as the James L. Michie South Carolina fluted point collection and the Larry Strong collection from Allendale County.

Clovis micro-prismatic blades from the Topper site (38AL23). (*SCIAA photo by Daryl P. Miller*)

Education

Educational opportunities are provided for University students and the public. Undergraduate and graduate students work as supervisors in excavation and laboratory studies and conduct thesis and dissertation research on site collections. Volunteers from the public can learn field and lab skills by participating in Survey programs. Nationally known experts in Paleoamerican archaeology such as Dennis Stanford, James Adovasio, and Jim Chatters, are on occasion sponsored by the Survey to give academic lectures that are open to the public. Scientific conferences are held on timely subjects such as Clovis in the Southeast (www.clovisinthesoutheast.net) that the public is encouraged to attend.

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References

Anderson, David G., D. Shane Miller, Stephen J. Yerka, and Michael K. Faught
2005 Paleoindian Database of the Americas: 2005 Status Report. *Current Research in the Pleistocene* 22:91-92.

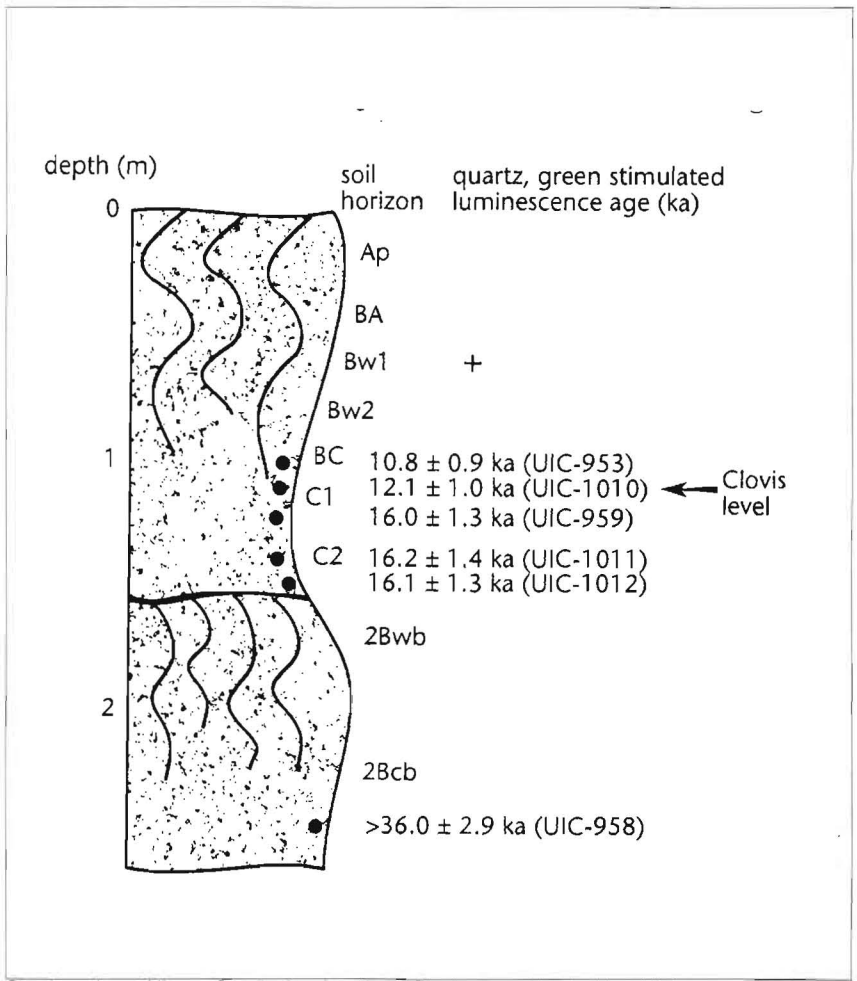
Chandler, Jim
2006 Clovis at Topper. *The Mammoth Trumpet*, Vol. 21, pp 1-3, 15-20. The Center for the Study of the First Americans, Texas A&M University.

Gillam, J. Christopher, Albert C. Goodyear, and Tommy Charles
2005 Updating and Georeferencing the South Carolina Paleoindian Point Survey. *Current Research in the Pleistocene* 22:92-94. Center for the Study of the First Americans, Texas A&M University.

Gillam, J. Christopher, David G. Anderson, Stephen J. Yerka, and Shane Miller
2006 Estimating Pleistocene Shorelines and Land Elevations for North America. *Current Research in the Pleistocene*, Vol. 23. Center for the Study of the First Americans, Texas A&M University.

Goodyear, Albert C.
1999 The Early Holocene Occupation of the Southeastern United States: A Geoarchaeological Summary. In *Ice Age Peoples of North America*, edited by Robson Bonnichsen and Karen L. Turnmire, pp. 432-481. Oregon State University Press and the Center for the Study of the First Americans.

Goodyear, Albert C.
2005 Evidence of Pre-Clovis Sites in the Eastern United States. In *Paleoamerican Origins: Beyond Clovis*, edited by R. Bonnichsen, B. T. Lepper, D. Stanford, and M.R. Waters, pp. 103-112. Center for the Study of the First Americans, Texas A&M University.



Stratigraphy at Nipper Creek site showing OSL dates and buried late Pleistocene land surface. (*From Current Research in the Pleistocene, Vol. 20, 2003*)

Goodyear, Albert C., Steven L Forman, and John E. Foss
2003 Recent Application of Optically Stimulated Luminescent (OSL) Dating at the Nipper Creek Site (38RD18), South Carolina. *Current Research in the Pleistocene* 20:26-29.

Goodyear, Albert C. and Kenn Steffy
2003 Evidence of a Clovis Occupation at the Topper Site, 38AL23, Allendale County, South Carolina. *Current Research in the Pleistocene* 20:23-25. Center for the Study of the First Americans, Texas A&M University.

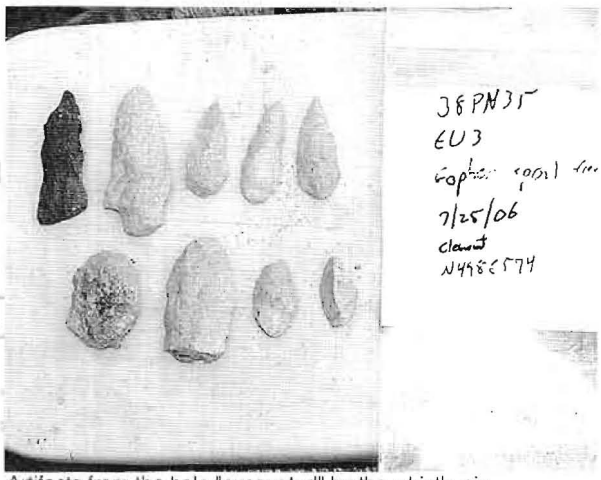
Steffy, Kenn and Albert C. Goodyear
2006 Clovis Macro Blades from the Topper Site, 38AL23, Allendale County, South Carolina. *Current Research in the Pleistocene* 23. Center for the Study of the First Americans, Texas A&M University.

UPDATE OF ROBERTSON FARM EXCAVATIONS

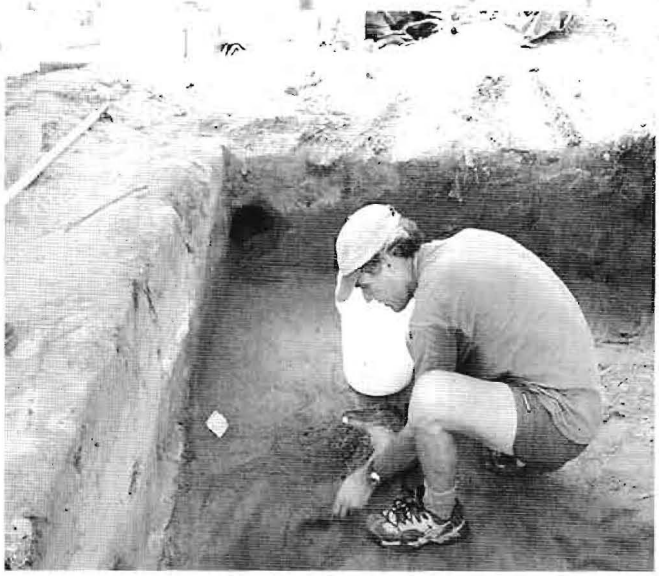
By Tommy Charles

Excavation at archaeological site 38PN35 resumed in August 2006. Jesse Robertson, Jeff Catlin, and Roger Lindsay assisted Dr. Chris Clement with the research during some very hot weather. When the site was closed down last winter the excavated areas were covered with plastic to protect them until our return. When we inspected the site prior to resuming work, a large amount of dirt was under a portion of the plastic cover. At first glance we thought that a wall had collapsed or that rain had washed the fill in. An inspection showed that neither had happened, the culprit was a groundhog, locally called a "whistle pig." As the critter's fill dirt was removed, it was sifted to recover any possible artifacts. Well, the photograph says it better than I can tell it.

In the absence of the "whistle pig," things settled down, and the excavation progressed nicely. The site was completed at the end of August. As soon as we can raise the funds, we will send a number of carbon samples for dating and also botanical remains for analysis. Those who wish to make a contribution, may send a check to Tommy Charles, SCIAA, 1321 Pendleton Street, Columbia, SC 29208. Make the check out to the USC Educational Foundation, Account # 1A-3868. Thanks for your continuing support.



Artifacts from the hole "excavated" by the whistle pig. (*SCIAA photo*)



Chris Clement excavating at 38PN35. (*SCIAA photo*)

The "whistle pig" was captured and set free in another location away from the excavation unit. (*SCIAA photo*)

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